BY LAURA OLENIACZ

DURHAM – During a visit to a Durham-based start-up solar technology company on Tuesday, the president's top environmental adviser touted natural gas as a cheap source of electricity. She also said it's growing as an alternative fuel for some trucks, buses and other vehicles to help to reduce the country's oil dependency.

But Nancy Sutley, the chair of the White House Council on Environmental Quality, also said lower natural gas prices put pressure on companies like Durham-based Semprius to drive down the cost of solar to make the technology more cost competitive.

Natural gas is a hot topic for North Carolina right now as state lawmakers are looking to take up legislation this summer that would legalize horizontal drilling and hydraulic fracturing in the state.

Horizontal fracturing, or fracking, involves pumping pressured fluids into vertical and horizontal wells to extract natural gas from underground rock. Critics have raised concerns about air and water quality impacts from the practice.

Gov. Beverly Perdue announced Monday that she had signed an executive order to create a work group that would develop regulatory recommendations for oil and gas exploration in the state. Meanwhile, state lawmakers have been pushing a bill forward that would legalize fracking by as early as 2014.

"It's too early in the process to comment on any specific piece of legislation -- the governor hopes that the General Assembly will review the executive order and work with her to achieve an energy policy that works for businesses and families across North Carolina," Chris Mackey, a spokeswoman for the governor, said in an e-mail.

Sutley was in town on Tuesday to tour Semprius along with U.S. Rep. David Price, D-4th. She

made the stop as part of an effort to draw attention to the president's energy policy and a "to-do list" that he's called Congress to act on that includes an expansion of a clean energy manufacturing tax credit.

Semprius is a company that's received both public and private dollars to fuel its development. The company is looking to open a factory in Henderson where it can produce high-concentration photovoltaic modules in larger volumes. While the start-up now employs 48 workers, officials have said they plan to employ about 250 workers when the plant reaches full production.

The company's technology centers around the use of lenses to focus sunlight on small solar cells, used absorb sunlight to turn it into electricity, that are about the size of a pencil point. The small size of the cells is aimed to help the company cut costs in the production process.

The company is not in full-scale production yet of its solar modules. Russ Kanjorski, vice president of business development, said Semprius is currently deploying modules to be used by its customers for testing in smaller volumes.

It's able to produce between 50 and 100 modules per month in the company's offices in Durham, Kanjorski said. Production at the new facility in Henderson is expected to reach hundreds of modules per day.

The process that the company uses to make their solar cells was licensed from the University of Illinois, and was created in the laboratory of a science and engineering professor, John A. Rogers, who was the winner of the 2011 Lemelson-MIT Prize.

Semprius itself was also named as one of the Top 10 Most Important Emerging Technologies in the Massachusetts Institute of Technology's "Technology Review."

Sutley called Semprius a company that's "leading in innovation," and spoke in support of the government's role in helping develop emerging technologies. In addition to raising more than $40 million by selling equity stakes in the company and on top of local incentives, Semprius was

selected for a $3 million subcontract from the U.S. Department of Energy's Renewable Energy Laboratory in 2010. The funding was to be used to help commercialize its technology.

"I think most people agree government should help support ... research and development to see how we can help to take something from the research and development stage to commercial deployment," Sutley said, also drawing attention to the president's support for setting a federal-level clean energy standard.

Rob Jackson, an environmental science professor at Duke University's Nicholas School for the Environment and the director of the Center on Global Change, said federal legislation has been proposed to set national standards for generation of electricity from clean energy sources, but he doesn't think that bill will pass in the current cycle.

Right now, the solar industry is a minor, but growing part of U.S. electricity generation, Jackson said, but he said he believes the market is expected to grow due to state-level renewable energy standards, falling prices, as well as from general appreciation for renewable energy sources.

But he also said he believes that if prices for natural gas, which he called the Obama administration's "fossil fuel of choice," stay at low levels, they will slow development of renewable technologies.

"I think that's just basic economics, not a criticism of natural gas," Jackson said. "Why do we have most of electricity coming from coal? It's dirtier of other sources, but it's cheaper."